DATA-LINC GROUP™
The Industrial Data Communication Experts

CIX6530
Wireless Remote I/O
Communication I/O eXtender Discrete/Analog

CIX6530 2.4 GHz Discrete/Analog Wireless I/O

Features

- 12 bit analog resolution
- 256-bit AES encryption
- Expandable for future growth
- 8 discrete inputs, 8 discrete outputs, 4 analog inputs and 4 analog outputs
- 16 km (10+ mile) range– LOS (line-of-sight)
- Single unit configurable as Master, Remote, Repeater or Repeater/Remote
- Easily upgradable to add Ethernet and/or serial devices
- 100 mW EU version also available
- Optional DIN rail mounting

The Data-Linc Group CIX6530 2.4 GHz I/O Communication Interface I/O Extender offers the ability to transmit discrete and analog signals with robust, industrial wireless technology. This allows wireless I/O communication between the Master and one or more Remotes for a distance of a few feet to many miles with implications for use in a variety of industries. For convenience, any unit may be configured as Master, Remote, Repeater or Repeater/Remote. This not only simplifies replacement but also reduces the number of units needed for "spare" inventory.

The CIX6530 offers 12 bit analog resolution for enhanced accuracy and resolution. It therefore provides more precise monitoring and control, allowing data collected at the input to be relayed and reported with greater accuracy to the PLC or sensor.

Diagnostic LEDs provide confidence in the wireless performance along with confidence provided by 256-bit AES encryption for enhanced security.

Each CIX6530 has a total of 24 independent points—eight discrete inputs and eight discrete outputs, as well as four analog inputs and four analog outputs. Its SRM6x30 radio module reliably relays data even in harsh industrial environments. But in the event of a communications failure, the output states of the discrete and analog channels can be configured to retain the last known value or a pre-defined state.

The CIX6530 is ideal for fixed or mobile installations. Its wireless component combines the analog and discrete I/O extender with Data-Linc Group's SRM industrial grade license-free wireless modems. With its updated features and expansion capability, the CIX6530 along with the CIX/EXR expansion non radio Remote provides a simple to implement, cost-effective solution for wireless I/O signal transmission that ensures solid performance and reliability in any RF environment. The CIX6530 is backward compatible with both the legacy CIX6500/R and the DAX6500.

The Communication Interface Extender goes beyond standard I/O devices. If an expanding network requires interfacing with Ethernet or serial devices, the CIX6535 Ethernet or serial Master modem may be added as the "head end". The CIX6535 Master's dual ports— an Ethernet or a serial— allows it to connect to a PC or PLC to easily upgrade your system, providing simplified, low-labor startup, maintenance and growth for I/O in both the 900 MHz (CIX6435) and the 2.4 GHz (CIX6535) ISM license-free bands.

CIX6530 Specifications

License-free 2.4 GHz I/O Extender

Operating Frequency

License-free, 2.4 GHz ISM band

Included

CD Configuration software, User Manual
Antenna 0 dB bench test antenna
Other Programming Cable, Power Supply, Quick Start

Transmitter

Rated Range 10 miles (16 km), LOS
System gain 129 dB
Output Power 500 mW maximum,
27 programmable steps up to 500 mW (27 dBm)
100 mW EU version available
Modulation Spread Spectrum, GFSK
Spreading Code Frequency Hopping
Hop Patterns 15 (user selectable)
Occupied Bandwidth 230 KHz

Receiver

Sensitivity -105 dBm @ 115.2 Kbps for BER10^{-4};
-102 dBm @ 153.6 Kbps for BER10^{-6}
Selectivity 20 dB at fc +/- 345 kHz

RF Data Transmission

Error Detection 32 Bit CRC
Data Throughput 115.2 Kbps - 153.6 Kbps
Data Encryption 256 bit AES

Interface

Analog 0-20mA, 4-20mA or 0-10VDC,
24VDC max. loop
Voltage 12-bit resolution, self powered-outputs
Discrete Inputs Dry contact closure
Discrete Outputs Open collector (sink to ground),
100mA per channel, 12-24VDC

Connections

I/O Discrete and Analog
Pluggable terminal blocks
Wire size 12-26 AWG
Power 3-pin pluggable terminal block
Diagnostic port RS232 DB9 Female
EX-Linc RS232 DB9 Female or RS485 2-wire

Indicators

General Power (P), Carrier Detect (C), RF Output (O), RF Input (I), Comm Error
Discrete Activity LED for each discrete I/O

Power

Input Voltage 12-28VDC, wall mount 12VDC/ 115-230VAC power supply included
Transmit Current 650mA@12VDC (8W)
Receive Current 100mA@12VDC (1.2W)

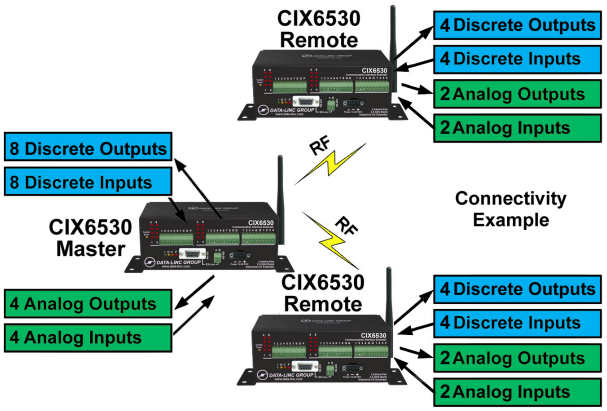
Operating Modes

Master, Remote, Repeater, Repeater/Remote

* Version also available without the radio component for expanding I/O points at an existing CIX Remote location.

Interfacing Diagram

I/O to I/O



CIX6530 (as a Master unit)

- **Supports to up to 8 CIX6530 as Remotes.**
- **Each Master discrete input is replicated on each Remote discrete output.**
- **Discrete inputs from one or more Remote units are wired as active low to appear on Master discrete outputs.**
- **Compatible with existing DDAA1000 8 bit mode Remote devices (8 bit analog only)**
- **Analog outputs are mapped via configuration software from Remote analog inputs (0 to 4 total)**

CIX6530 (as a Remote unit)

- **Remote analog inputs are mapped via setup to Master analog outputs (0 to 4 total)**

Antenna

Standard thread female SMA (for optional external omni directional or yagi antennas)
Supplied bench test antenna
Nominal Impedance 50 Ω 50Ω

Operating Environment

Temperature -40°F to 167°F (-40°C to 75°C)
Humidity 0 to 95% non-condensing

Enclosure

Standard 18 gauge steel
2.47 X 3.70 X 6.4 in. (6.274 X 9.398 X 16.26 cm)
Included Optional DIN rail mounting flanges (3)
Shipping Weight 1.8 lb (0.82 kg)

Specifications subject to change without notice.
DATA-LINC GROUP & *SmartSpectrum are* trademarks of *DATA-LINC GROUP.*
©2014 *DATA-LINC GROUP*. All rights reserved.

DATA-LINC GROUP
Corporate Headquarters
1125 12th Avenue NW
Issaquah, WA 98027 USA
info@data-linc.com

Tel: (425) 882-2206
Fax: (425) 867-0865
www.data-linc.com

P/N 155-09873-003 140212

DATA-LINC GROUP™
The Industrial Data Communication Experts

2.4 GHz CIX Wireless I/O System

Communication Interface I/O eXtender

2.4 GHz Protocol to I/O Interface

GENERIC

CIX 2.4 GHz Wireless I/O System

Data-Linc Group designed the Communication Interface Extender (CIX) System specifically to offer cost-effective, industrial grade wireless solutions that interface with I/O devices. The CIX6530 is a long-range FHSS radio with connections for discrete and analog inputs and outputs. The user can either use these radios for I/O to I/O data exchange (mirroring) by using the CIX6530 radios for the entire network, or use the alternative option of an I/O to Protocol solution implemented by using the CIX6530 I/O units at the remote sites and Data-Linc's unique CIX6535 protocol to I/O Master, a companion radio with serial and Ethernet ports.

There are many advantages in having wireless modems with an I/O interface. For example, they can extend I/O signals to or from remote locations such as tank farms, and they connect devices even if those devices do not share a common communication protocol.

An I/O to I/O solution is a network where the signals at a main location would be shared wirelessly with up to another eight remote locations all using the CIX6530.

When using the I/O to Protocol system network, all the I/O points at the CIX6530 Remotes are accessible via the Ethernet port of the CIX6535 Master unit through Ethernet/IP or Modbus TCP/IP, or via the serial port using DF1 or Modbus RTU communication protocols. This solution increases the capacity of the wireless network by supporting up to 384 I/O points, spread over a maximum of 16 remote locations. These options are user selectable via the included configuration software, which also allows the user to define the desired state for the discrete outputs in case of a communication failure.

Features

CIX Wireless I/O System

- **2.4 GHz ISM band, license-free ISM**
- **Range of up to 16 km (10 mi)**
- **SmartSpectrum™ technology for maximum data integrity, even in noisy environments**
- **AES 256 encryption**
- **Separate RS-232 DB9 port for configuration**
- **User adjustable hop patterns and frequency zones for refined operation of close proximity networks**
- **Factory configured for easy installation**
- **CIX/EXR I/O expansion module available**
- **Optional DIN rail mount**

  (**Note**: 100 mW EU version also available)

CIX6535 I/O to Protocol

- **One Ethernet port - Ethernet/IP and Modbus TCP/IP compatible**
- **One serial port – DF1 and Modbus RTU compatible**
- **Supports up to 16 CIX6530 Remotes (I/O to Protocol solution)**
- **Backward compatible with CIX6400/M**

CIX6530 I/O Interface

- **Operates as Master (I/O to I/O only), Remote, Repeater and Remote/Repeater**
- **8 Discrete Inputs, 8 Discrete Outputs, 4 Analog Inputs and 4 Analog Outputs**
- **Backward compatible with CIX6500/R and DAX6500**

DATA-LINC GROUP™ 1125 12th Ave NW • Suite B-1 • Issaquah, WA 98027 • Phone: 425-882-2206 • Fax: 425-867-0865 • www.data-linc.com •

CIX 2.4 GHz Specifications

License-free 2.4 GHz protocol & I/O modems

Included
CD Configuration & diagnostics software, User Guide
Bench test antenna
Configuration cable
Power Supply

CIX6535 & CIX6530*

Transmitter
Rated Range 10 miles (16 km), LOS with omni directional antennas
Output Power 500 mW maximum, 10 programmable steps up to 500 mW (+27 dBm)
Modulation Spread Spectrum, GFSK
Spreading Code Frequency Hopping
Hop Patterns 15 (user selectable)
Occupied Bandwidth 230 KHz
(**Note**: 100 mW EU version also available)

Receiver
Sensitivity -105 dBm @ 115.2 Kbps for BER10^{-4}; -102 dBm @ 153.6 Kbps for BER10^{-6}
Selectivity 20 dB at fc +/- 345 kHz

RF Data Transmission
Error Detection 32 Bit CRC
Data Throughput 115.2 Kbps
Data Encryption 256 bit AES

Antenna
Standard thread SMA female
Supplied bench test antenna
Nominal Impedance 50 Ω

Operating Environment
Temperature -40 to 167°F (-40 to 75°C)
Humidity 0 to 95% non-condensing

Enclosure
Standard 18 gauge steel
2.47 X 3.70 X 6.4 in. (6.274 X 9.398 X 16.26 cm)
Included Optional **DIN rail mounting flanges (3)**
Shipping Weight 1.8 lb (0.82 kg)

CIX6535 Protocol to I/O Master Radio Modem

Interface
Ethernet port 10/100 Base-T Auto-MDIX
Serial port RS-232 - DB9 Female;
RS-485 - terminal block

Power
Input Voltage 10-28VD; wall mount 12VDC/115-230VAC power supply included
Transmit Current 650mA@12VDC (8W)
Receive Current 100mA @12VDC (1.2W)

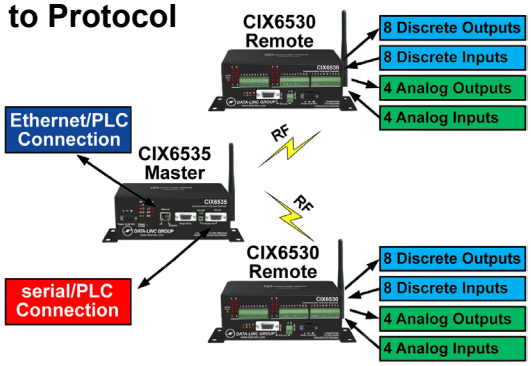
Operating Modes
Master only

Configuration Software
CIX-Linc software included

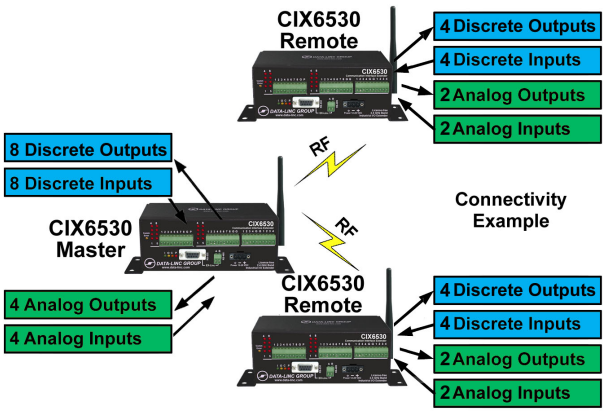
Diagnostics
Front Panel LEDs Power, RF Carrier, RF Out , RF In, LAN (Link-Act), Mode LEDs x 4

Diagram & Dimensions

I/O to Protocol



I/O to I/O



CIX6530 I/O Interface Radio Modem

Interface
Analog 0-20mA, 4-20mA or 0-10VDC, 24VDC max. loop
Voltage 12-bit resolution, self powered-outputs
Discrete Inputs Dry contact closure
Discrete Outputs Open collector (sink to ground), 100mA per channel, 12-24VDC

Power
Input Voltage 12-28VDC, wall mount 12VDC/ 115-230VAC power supply included
Transmit Current 650mA@12VDC (8W)
Receive Current 100mA@12VDC (1.2W)

Operating Modes
Master, Remote, Repeater, Repeater/Remote

Configuration Software
CIX-IO software included

Diagnostics
Front Panel LEDs Power, RF Carrier, RF Out , RF In, LAN (Link-Act)

Specifications subject to change without notice.
DATA-LINC GROUP & *SmartSpectrum are* trademarks of *DATA-LINC GROUP.*
©2014 *DATA-LINC GROUP*. All rights reserved.

DATA-LINC GROUP
Corporate Headquarters
1125 12th Avenue NW
Issaquah, WA 98027 USA
info@data-linc.com

Tel: (425) 882-2206
Fax: (425) 867-0865
www.data-linc.com

P/N 155-09848-005 140211 -SE

DATA-LINC GROUP™
The Industrial Data Communication Experts

FastLinc FLC830E

802.11bg High-speed OFDM Ethernet Modem

Data-Linc Group's FLC830E, part of the *FastLinc* Family of high-speed wireless, industrial Ethernet modems provides an ideal data communication option for installations requiring exceptionally fast data rates, as well as those in high RF-noise environments. The FLC830E replaces and is backward compatible with the FLC810E+ and the FLC820G and is superior in robustness and speed compared to other 2.4 GHz products. .

It provides long-range capability—up to 14.5 km (9 miles) line-of-sight (LOS), farther with Repeaters— and exceptional speed (up to 54 Mbps) that supports data transfer on a single network for real-time security/surveillance where SCADA is also required. Additionally, it provides the user with data prioritization through QoS (Quality of Service), permitting user-adjusted preferential data service for reduced data latency— the transmission time for a data packet to travel from point A to point B.

The combination of these outstanding features has produced a data communication product with exceptional performance. The FLC830E is extremely robust and reliable. The high speed and OFDM greatly enhance plant floor performance by reducing LOS issues and multi-path fading caused by RF reflection that can be particularly troublesome for plant-floor data transfer— conditions that constrain data rates and reliability in typical high-speed data systems. The *FastLinc* FLC830E also supports modern encryption standards (AES, WPA, etc.) for enhanced security.

The OFDM technology permits data transfer that supports complex modulation and the resulting high data rates with low latency. The advantages of the 802.11 speeds, 2.4 GHz band and immunity to multi-path fading permits the FLC830E to provide high data transfer rates while maintaining excellent noise resistance and improved line-of-sight issues. For long distances, challenging plant-floor LOS issues and high data rate needs, such as use as a SAA-V* solution, supporting SCADA and real-time video on the same network. The FLC830E along with Data-Linc's unsurpassed wireless expertise makes this the ultimate solution.

Features

- **Adapts to high-noise conditions**
- **Supports AES encryption**
- **Features data prioritization capability through QoS**
- **Reduces LOS issues and minimizes multi-path fading**
- **Offers long range data transfer— up to 14.5 km (9 miles) LOS, farther with Repeaters**
- **ETSI & CE Mark compliant**
- **Provides exceptionally high data rates (up to 54 Mbps)**
- **IEEE 802.11bg compliant— FLC810E, FLC810E+ and FLC820G backward compatibility**

Typical Applications

- **Security/surveillance audio/video with SCADA**
- **High-noise environments:**
  - **Arc welding**
  - **High voltage**
  - **Plant floor**
  - **Variable frequency drives**

* SAA-V - SCADA Alert Audio-Video on a single network

High-speed FLC830E Ethernet 802.11bg OFDM

DATA-LINC GROUP™ 1125 12th Ave NW • Suite B-1 • Issaquah, WA 98027 • Phone: 425-882-2206 • Fax: 425-867-0865 • www.data-linc.com •

FLC830E Specifications

Operating Frequency

License-free, 2.4 GHz ISM band

- **FCC 2.412-2.462 GHz (CH 1 - CH 11)**
- **TELEC 2.412-2.472 GHz (CH 1 - CH 13)**
- **ETSI 2.412-2.472 GHz (CH 1 - CH 13)**

Included

- **CD User Manual**
- **Antenna Test Antenna**
- **Other** Ethernet Cable, Power Supply, Quick Start Guide

Transmitter

- **Maximum** range standard LOS, directional antennas
  - 14.5 km/9 miles **@ 1 Mbps (802.11b)**
  - 10.5 km/6.5 miles **@ 6 Mbps (802.11g)**
  - 1.2 km/0.75 miles **@ 54Mbps (802.11g)**
- **Maximum range EU**
  - 1.3 km/0.8 miles @ 1 Mbps (802.11b)
  - 0.96 km/0.6 miles @ 6 Mbps (802.11g)
  - 145 m/160 yd @ 54Mbps (802.11g)

RF Output Power 200 mW (23 dBm), EU version < 100 mW (20 dBm)

Modulation CCK, OFDM

Spreading Code Direct Sequence

Channel 11 (USA) 13 (other countries)

Occupied bandwidth 5 MHz, 10 MHz or 20 MHz

Receiver Sensitivity

- -74 dBm @ 54Mbps Rx Sensitivity (802.11g)
- -93 dBm @ 6 Mbps Rx Sensitivity (802.11g)
- -96 dBm @ 1 Mbps Rx Sensitivity (802.11b)

RF Data Transmission

- **RF Encryption** AES, TKIP, WEP, WPA, WPA2
- **RF Data Rate** 6, 9, 12, 24, 36, 48 or 54 Mbps

Operating Modes

Base Station, Station Adaptor and Interbuilding Repeater

Data Throughput

1 Mbps to 20 Mbps (Depending upon range and link quality)

Connections

- **Antenna** Reverse polarity SMA connector, female, 50Ω
- **Ethernet** 10Base-T/100 Base-T Auto-MDIX
- **Power** 10-28 VDC, 3-pin pluggable terminal block

Indicators— Status LED's including

Power

- **Status**
- **LAN (Link-Act)**
- **LAN (100)**
- **WLAN**
- **RSSI*** in SA mode (5 stages)

Operating Environment

- **Humidity** 0-90% non-condensing humidity
- **Working Temp** -40 to 60° C (-40 to 140° F)

Enclosure

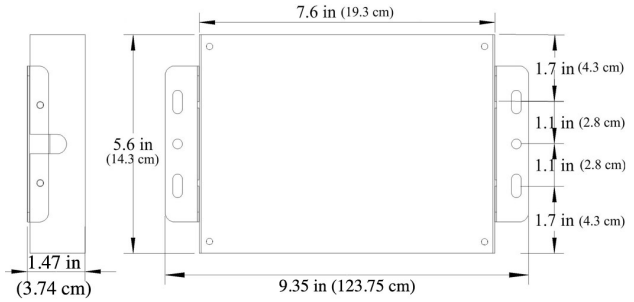
Standard 18-gauge steel with mounting flanges

- **Dimensions** 7.6 x 5.6 inches (19.3 x 14.3 cm); 9.4 x 5.6 inches (23.9 x 14.3 cm) w/ mounting flanges
- **Included** Optional DIN rail mounting flanges (3)

Shipping Weight appx 1.8 lb (0.82 kg)

***Receiver Signal Strength Indicators**

FLC830E Dimensions



About DATA-LINC GROUP

Since 1988, Data-Linc Group has provided reliable communication solutions for industrial automation systems. As a Rockwell Automation, Global Encompass Partner, Data-Linc provides a solution based approach thanks to its long-time experience with Allen Bradley devices such as PLCs, HMIs, etc. Data-Linc's products use industry proven RF technologies that have been successfully applied in all major industries worldwide, including automotive plants, paper mills, consumer goods, manufacturing/packaging, oil & gas refineries and pipelines, utilities, moving platforms and transportation systems— underground, offshore and above ground, Data-Linc meets the challenge.

Alliance Partners

GE Fanuc

MITSUBISHI ELECTRIC

OMRON

NATIONAL INSTRUMENTS

Rockwell Automation Encompass Product Partner Global

Gold Technology Partner for Industry Schneider Electric

Siemens Product Partner SIEMENS

DATA-LINC GROUP
Corporate Headquarters
1125 12th Avenue NW
Issaquah, WA 98027 USA
info@data-linc.com

Tel: (425) 882-2206
Fax: (425) 867-0865
www.data-linc.com

FastLinc is a trademarks of *DATA-LINC GROUP*. Specifications subject to change without notice.
©2014, DATA-LINC GROUP. All rights reserved.

P/N 155-09855-007 140212

DATA-LINC GROUP™
The Industrial Data Communication Experts

SRM6130

Long-range 2.4 GHz FHSS Serial Radio Modem

2.4 GHz Long-range FHSS Serial Radio Modem

Data-Linc's 2.4 GHz serial member of the **S**martSpectrum™ **R**adio **M**odem Family, the SRM6130, offers a license-free serial modem with superior reliability, versatility and performance for wireless data communication. This latest version provides improved hardware, such as a faster processor, while maintaining Data-Linc's commitment to backward compatibility with its corresponding legacy version, the SRM6100

Like its predecessors, the SRM6130 serial radio modem employs FHSS (Frequency Hopping Spread Spectrum) technology with proven data communication reliability, in the 2.4 GHz ISM frequency band. Data-Linc's robust modem allows customers to implement a proprietary wireless network in high RFI/EMI environments with the benefit of confidence in unsurpassed data communication integrity, including areas of existing wireless infrastructure.

The SRM6130 is software configurable and has a separate DB9 serial port for independent access to configuration software. Data-Linc's proprietary *ConfigLinc*™ software, that is included with the SRM6130 modems, simplifies modem setup and configuration— executed via the dual serial ports (RS-232 or RS-485).

As with all members of the SRM Family of license-free radio modems, the SRM6130 supports both point-to-point and point-to-multipoint network topologies with a virtually unlimited number of radios. Each modem can be individually configured as Master, Remote, Repeater or Repeater/Remote using the included Config-Linc™ software. Additionally, the SRM6130 provides not only superior security through AES-256 encryption but also offers a long distance range of 10 miles (16 Km) with line-of-sight, farther with Repeaters and/or high gain antennas. The combination of features and benefits supplied by the SRM6130 serial modem continues to support Data-Linc's well-earned reputation for superior reliability, versatility and performance for wireless industrial data communication.

Features

- **License-free 2.4 GHz ISM band**
- **Range up to 24 km (15 miles)**
- **SmartSpectrum™ technology for maximum data integrity in noisy, industrial environments**
- **RS-232/RS-485 data ports**
- **AES 256 bit Encryption**
- **Separate RS-232 DB9 port for configuration**
- **Operates as Master, Remote, Repeater or Repeater/Remote**
- **User adjustable hop patterns and frequency zones for refined operation of close proximity networks**
- **Replacement for any legacy SRM serial modem**
- **Factory or field configured for easy, trouble-free installation**
- **Optional DIN rail mounting**

SRM6130 Specifications

Operating Frequency

License-free, 2.4 GHz serial radio modem

Included

CD *SetLinc*™ configuration software
Test antenna
Power supply
User Guide

Transmitter

Rated Range 15 miles (24 km), LOS with omni directional antennas
Output Power 500 mW maximum, 10 programmable steps up to 500 mW (+27 dBm) (**Note**: 100 mW EU version available)
Modulation Spread Spectrum, GFSK
Spreading Code Frequency Hopping
Hop Patterns 15 (user selectable)
Occupied Bandwidth 230 KHz

Receiver

Sensitivity -105 dBm @ 115.2 Kbps for $BER10^{-4}$; -102 dBm @ 153.6 Kbps for $BER10^{-6}$
Selectivity 20 dB at fc +/- 345 kHz
System Gain 132 dB

RF Data Transmission

Error Detection. 32 Bit CRC
Data Throughput 115.2 Kbps
Data Encryption 256 bit AES

Interface

RS-232/RS-485 Data ports
RS-232 Separate configuration port

Antenna

Standard thread SMA female
Supplied bench test antenna
Nominal Impedance 50 Ω

Power

Input Voltage 10-28 VDC; wall mount 12 VDC /115-230 VAC power supply included
Transmit Current 650 mA @ 12 VDC (8 Watts)
Receive Current 100 mA @ 12 VDC (1.2 Watts)

Operating Modes

Master, Remote, Repeater, Repeater/Remote

Configuration Software

Config-Linc software included

Diagnostics

Front panel LEDs Power, RF Carrier, RF Out, RF In, LAN (Link-Act), Mode LEDs x 4

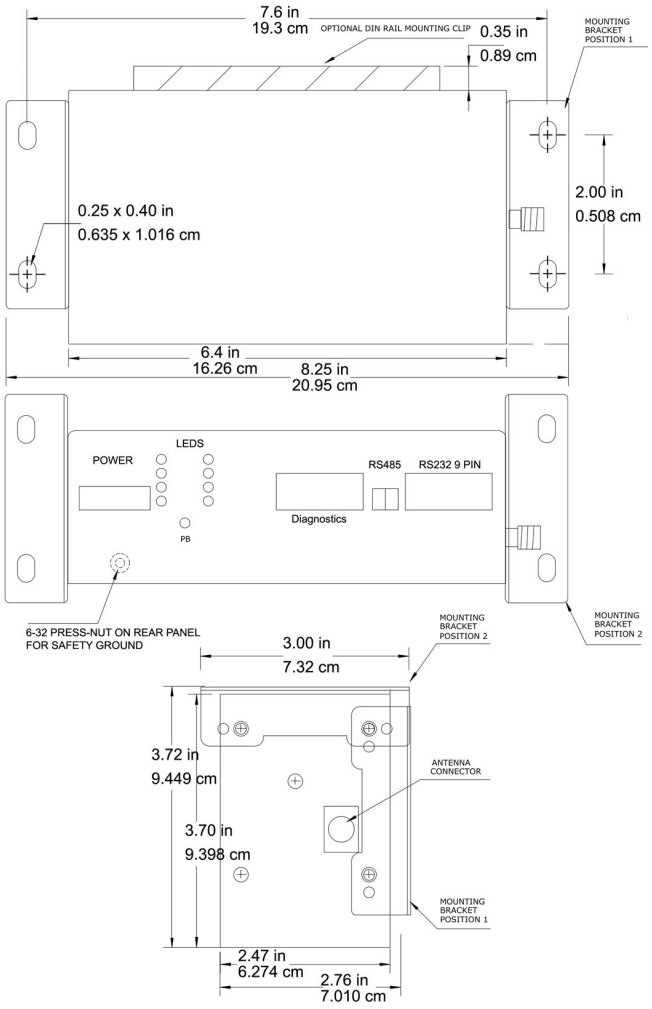
Operating Environment

Temperature -40° to 167° F (-40° to 75° C)
Humidity 0 to 95% non-condensing humidity

Enclosure

Standard 18 gauge steel
2.47 X 3.70 X 6.4 in. (6.274 X 9.398 X 16.26 cm)
Included Optional DIN rail mounting flanges (3)
Weight 1.8 lbs (.82 kg)

SRM6130 Dimensions



Note: Mounting bracket can be mounted in 4 positions on end plate for multiple mounting options.

Alliance Partners

GE Fanuc
MITSUBISHI ELECTRIC
OMRON
NATIONAL INSTRUMENTS
Rockwell Automation Encompass Product Partner Global
Gold Technology Partner for Industry Schneider Electric
Siemens Product Partner SIEMENS

DATA-LINC GROUP
Corporate Headquarters
1125 12th Avenue NW
Issaquah, WA 98027 USA
info@data-linc.com

Tel: (425) 882-2206
Fax: (425) 867-0865
www.data-linc.com

Specifications subject to change without notice. ©2014, ***DATA-LINC GROUP***. All rights reserved. SmartSpectrum are trademarks of ***DATA-LINC GROUP***.
All other trademarks are the property of their respective owners.

P/N 155-09844-004 140210

DATA-LINC GROUP™
The Industrial Data Communication Experts

SRM6330

Long-range 2.4 GHz FHSS Ethernet Radio Modem

2.4 GHz Long-range FHSS Ethernet Radio Modem

Data-Linc's license-free SRM6330 Ethernet radio modem offers exceptional reliability, versatility and performance for Ethernet wireless data communications. This latest version offers improved hardware with a faster processor, while maintaining Data-Linc's commitment to backward compatibility with its corresponding Ethernet legacy SRM6320, SRM6310E and SRM6300E versions.

Like its predecessors, the SRM6330 Ethernet radio module employs SmartSpectrum™ FHSS (Frequency Hopping Spread Spectrum) technology. Along with operating in the 2.4 GHz ISM frequency band, customers benefit by the assurance of an ultra reliable, robust, proprietary wireless network with the benefit of exceptional data integrity even in noisy high RFI/EMI environments– including areas with existing wireless infrastructure.

The SRM6330 is software configurable. Data-Linc's proprietary *SetLinc*™ software, that is included with the SRM6330 modems, simplifies modem setup and configuration. The 10/100 Auto-MDIX Ethernet ports not only support data transfer but also provide access for the configuration software. Configuration is also available via a separate DB9 serial port. For remote sites, web configuration is also an option. For customer convenience and first-line diagnostics, the front panel includes LED status lights that provide direct access to critical information.

As with all members of the SRM Family of license-free SmartSpectrum Radio Modems, the SRM6330 supports both point-to-point and point-to-multipoint network topologies and a virtually unlimited number of radios. Each modem can be individually configured as Master, Remote, Repeater and Remote/Repeater, through the included SetLinc™ software.

Features

- 2.4 GHz license-free ISM band
- Range of 10 miles (16 km)
- SmartSpectrum™ technology for maximum data integrity, even in noisy environments
- 10/100 Auto-MDIX Ethernet port
- AES 256 encryption
- RS-232 DB9 configuration port
- Configurable as Master, Remote, Repeater and Remote/Repeater
- User adjustable hop patterns and frequency zones for exceptional performance in close proximity networks
- Replaces any legacy 2.4 GHz Ethernet SRM series radio modem
- User assignable IP address
- Factory custom-configured for easy, trouble-free installation
- Optional DIN rail mounting

The SRM6330 not only provides superior security through AES 256 encryption but also offers a long-distance range of up to 10 miles (16 km) with line-of-sight, farther with Repeaters and/or high gain antennas.

Applications

- PLCs on mobile equipment— stackers, reclaimers, overhead cranes, etc.)
- SCADA systems— water/wastewater, power, oil & gas, etc.
- Underground and off-shore communications
- Networks in high RFI/EMI environments
- Telemetry

DATA-LINC GROUP™ 1125 12th Ave NW • Suite B-1 • Issaquah, WA 98027 • Phone: 425-882-2206 • Fax: 425-867-0865 • www.data-linc.com •

SRM6330 Specifications

Operating Frequency

License-free 2.4 GHz Ethernet radio modem

Included

CD *SetLinc*™ configuration software
User Manual
Test antenna
Ethernet CAT-5 cable
Power supply Wall mount 115-230 VAC supply, 12 VDC output

Transmitter

Range 10 miles (16 km) with LOS & omni antennas
Output Power 500 mW maximum, 10 programmable steps up to 500 mW (+27 dBm)
(**Note**: 100 mW EU version also available)
Modulation Spread Spectrum, GFSK
Spreading code Frequency Hopping
Hop Patterns 15 (user selectable)
Occupied Bandwidth 230 KHz

Receiver

Sensitivity -105 dBm @ 115.2 Kbps for BER 10^{-4}
-102 dBm @ 153.6 Kbps for BER 10^{-6}
Selectivity 20 dB at fc +/- 345 kHz
System Gain 132dB

RF Data Transmission

Data Throughput 115.2 Kbps – 153.6 Kbps
Error Correction 32 bit CRC
Data Encryption 256-bit AES

Interface

10/100 Auto-MDIX Ethernet port
Serial Port RS-232 – DB9 female
RS-485 – terminal block

Antenna

Standard thread SMA female
Supplied bench test antenna
Nominal Impedance 50 Ω

Power

Input Voltage 10-28VDC. Wall mount 12VDC/115-230VAC power supply included
Transmit Current 650mA@12VDC (8W)
Receive Current 167mA@12VDC (2W)

Operating Modes

Master, Remote, Repeater, Remote/Repeater

Configuration Software

SetLinc™ included configuration software

Diagnostics

Front panel LEDs Power, RF Carrier, RF Out, RF In, LAN (Link-Act), Mode LEDs x 4

Operating Environment

Temperature -40º to 167º F (-40º to 75º C)
Humidity 0 to 95% non-condensing

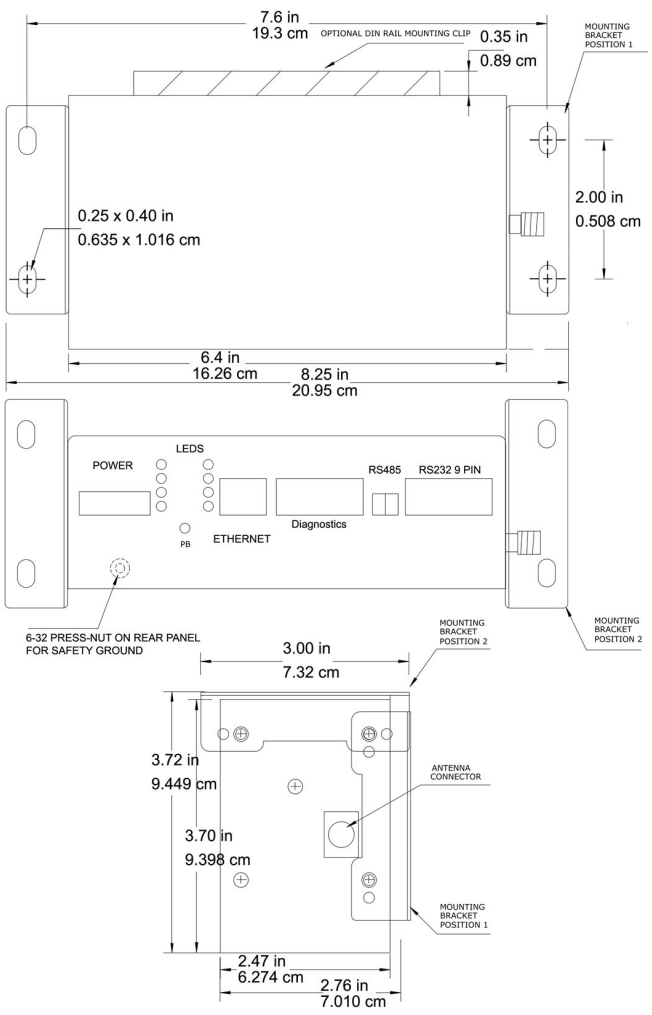
Enclosure

Standard 18 gauge steel
2.47 X 3.70 X 6.4 in. (6.274 X 9.398 X 16.26 cm)
Included Optional DIN rail mounting flanges (3)

Weight 1.8 lb (0.82 kg)

Specifications subject to change without notice. DATA-LINC GROUP and *SetLinc* are trademarks of ***DATA-LINC GROUP***. ©2014. All rights reserved.

SRM6330 Dimensions



Note: Mounting bracket can be mounted in 4 positions on end plate for multiple mounting options.

Alliance Partners

GE Fanuc
MITSUBISHI ELECTRIC
OMRON
NATIONAL INSTRUMENTS
Rockwell Automation Encompass Product Partner Global
Gold Technology Partner Schneider Electric
Siemens Product Partner SIEMENS

DATA-LINC GROUP
Corporate Headquarters
1125 12th Avenue NW
Issaquah, WA 98027 USA
info@data-linc.com

Tel: (425) 882-2206
Fax: (425) 867-0865
www.data-linc.com

P/N 155-09846-004 140210